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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,642	03/11/2002	Martin Hartung	1860/50916	9210
23911	7590	11/16/2004	EXAMINER	
CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			LEWIS, RALPH A	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

### Office Action Summary

Application No.

10/070,642

<b>Applicant(s)</b>	
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HARTUNG, MARTIN

Examiner

Ralph A. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07/22/2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 18-25 and 27-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-25 and 28-39 is/are allowed.
- 6) ☒ Claim(s) 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **Rejection based on Prior Art**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kovac et al (6,200,134).

Kovac et al disclose an irradiation unit in Figure 1 having a light conducting unit 22, LED light-emitting unit 30 with light beams 34 directed on the end of light conducting unit 22. The light emitting unit comprises a plurality of pre-packaged light emitting LED's; it is presumed that the Kovac et al conventional packaged LEDs have the claimed "light cone", "aperture" and "optical axis," as do applicant's conventionally packaged LEDs. The light emitting elements are all mounted in a plane to planar holder 40 at different angles of inclination so as to direct light at the end (i.e. "entrance aperture") of light conducting member 22. The Figure 1 embodiment of Kovac et al clearly meets all the limitations of the present claim with the possible exception of the "wherein the light-emitting elements are thermally connected to the housing" limitation.

In Figure 1 of Kovac et al the electrical leads 33 of the LEDs 30 are connected to a circuit board 40. A cooling fan 42 is "utilized to surface cool the LEDs 32" (column 6, line 43). Just as in applicant's device, heat would inherently be conducted through the

electrical leads of the LEDs (note applicant's specification paragraph [0054]). Kovac et al further teach in subsequent embodiments that cooling of the LED's may be further enhanced by connecting the LEDs to a heat sink 40 to prevent the LEDs from over heating. To have provided a heat sink at 40 in the Figure 1 device in order to keep the LED's from over heating as taught in the other embodiments of Kovac et al would have been obvious to one of ordinary skill in the art. Such a heat sink for the purposes of claim 27 is considered to be part of the "housing."

#### **Allowable Subject Matter**

Claims 18-25 and 28-39 are allowed.

It is noted, that unlike claim 27, claim 18 was amended to further specify that the housing contained the claimed light emitting unit in order to preclude an interpretation that an internal heat sink may be considered to be part of the housing.

Additionally, in regard to claim 18, the limitation that the "light-emitting elements are thermally connected to the housing" is considered to be critical to the claim's patentability. While there appears to be no clear and distinct basis in applicant's specification for the limitation, the examiner does note that the originally filed claim 11 provides a basis. Furthermore, Figures 1 and 3 provide apparent support where heat sink 21 is illustrated as being in direct contact with housing 10. It is the examiner's position that this provides sufficient support for the claimed feature. Finally, it is also noted that the prior art is by and large silent as to the expressly claimed "thermal connection to the housing." An exception is Cao (US 6,719,559) who teaches that it is

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desired to provide for thermal insulators 605 (Figure 6) between the heat sink and the housing, presumably so as to prevent the housing from heating up and injuring or making uncomfortable the user and/or the patient.

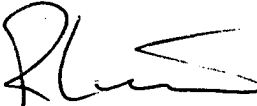
### **Action Made Final**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (703) 872-9306. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (571) 272-4720.

R.Lewis  
October 28, 2004

  
Ralph A. Lewis  
Primary Examiner  
Au 3732